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Summary

This paper examines and problematises ongoing changes in the relationship between citizens, markets and states around access to key public services. We document the promotion and emergence, over roughly the last ten years, of microcredit services to leverage household access to drinking water. We argue that water-microcredit arrangements imbricate with highly problematic elements of contemporary market-oriented inclusive development, which raise vexing questions about rights and equity. Water-microcredit arrangements require poor and low-income people to use loans to buy access to water services or construct their own supply. To be served, they must adopt an entrepreneurial form of agency, embrace debt, and cultivate self-responsibility, or otherwise risk being excluded and/or subjected to behaviour-change initiatives. We find that therefore the 'inclusion' promised by 'inclusive markets'-based approaches to water, in particular water-microcredit arrangements, is at best conditional, while also being highly differentiating and unequalising. Despite their promise to tackle iniquities, water-microcredit arrangements threaten to deepen the marketisation and depoliticisation of the water access question, exacerbate inequalities, and effectively undermine rights-based approaches.

Keywords: water; microfinance; inclusive markets; inequality; nudge.

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Contents

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Acronyms

BoP	bottom of the pyramid
CLTS	Community-Led Total Sanitation
CSR	Corporate Social Responsibility
IFI	international financial institution
MFI	microfinance institution
MNC	multinational corporation
NGO	non-governmental organisation
PPP	public–private partnership
RCT	randomised control trial
SDG	Sustainable Development Goal

Introduction

In the post-Washington consensus ideological vacuum, 'the market' serves as a central yet amorphous and contested reference point for development policy. Policymakers across the development space, even the mainstream, have come to regard markets – once seen as self-regulating, spontaneous, and naturally inclusive and expansive – as in need of better management; even more so since the great financial crisis in 2007–08. Markets' tendencies toward fragility and instability (Griffith-Jones and Ocampo 2009; Birdsall and Fukuyama 2011), their non-emergence in response to certain crucial needs (*cf*. 'missing markets'; Emran *et al.* 2011: 2) and patterns of exclusion and harm towards marginal people (Karnani 2008) are finally attracting more attention. The recognition of these problems, however, has by no means entailed a clear shift away from market-based (or market-oriented) interventions. Rather, a policy shift accompanied by a new type of behaviourism has been taking place since at least the mid-2000s, directing attention away from the failure of markets themselves and toward the supposed failure of individuals in relation to markets (World Bank 2014).

Microfinance has been one of the quintessential 'market-based' approaches to poverty alleviation and development, and water is one of the areas of development in which market provision has created the greatest controversy. In this paper, we connect microcredit and water with emergent policy approaches around 'inclusive' markets that seek to generate market inclusion by ensuring a better performance of people *for* markets. Compared with previous market-led initiatives, in which individuals were generally viewed as passive victims of market failures, new approaches seek to bring poor (or low-income) people into markets by, first, recognising that these people have 'special' needs, and second, intervening to make them perform in ways that will make them more likely to be served. This approach is both 'pro-market', in that it strives for market-oriented solutions, and 'post-market', in that it recognises how, 'more often than not, markets are not enough in and of themselves and there is always room to design and implement 'incentive-compatible' mechanisms' (Klein 2017: 488). Often this is done by actors that wield the power of the state.

According to the United Nations (World Health Organization 2017), in 2015, about 2.3 billion people have no access to improved sanitation facilities and around 892 million people still practice open defecation, which has a negative impact on the quality of water sources used for daily needs. The main international organisations have continually put improved access to water and sanitation at the top of the development agenda (UN Millennium Development Goals) and recognised clean water and sanitation as a human right (Sultana and Loftus 2011). But shortages of sources of finance remain a key important obstacle for widening coverage for poor populations worldwide. Already in the 1980s, 'a review by the World Health Organization of the International Decade of Drinking Water and Sanitation Water and Sanitation (1980s) stated that financial constraints were the single most serious obstacle to the progress of the Decade's goals' (Littlefair 1998: 7).

Water-microcredit arrangements, wherein small loans to households are used to finance water access, falsely make inclusive water access appear no longer a question of correct policies, systems, or engineering solutions, but rather, we argue, of financial and behaviourally re-engineering water consumers. Instead of addressing thorny questions around water equity and rights, or how to make established modes of water provision and governance more inclusive (especially the publicly-managed piped systems that resolved water poverty issues many decades ago in developed countries; Hall and Lobina 2006), water-microcredit arrangements rearrange the discourse and practice of water provision in a post-market logic. Their aim is to facilitate low-income people's *self*-inclusion via financial models that require them to think and act entrepreneurially (as investors in their own water inclusion), and to accept modes of provision that often entail lower quality services at a

higher price. They often entail alternative systems of provision, off-grid solutions, and inequitable ways of buying into existing piped networks. We highlight the extra conditions that low-income individuals are expected to meet in order to have access to marketised safe drinking water, and argue that the insertion of financial and behavioural technologies into household water provision is a significant and potentially worrying development. It serves to rejuvenate market-like (or market-compatible) models of provision where market-based approaches previously demonstrably failed to deliver and public sector-led approaches are gradually gaining ground again (McDonald 2014).

We proceed as follows: the next section studies the enmeshment of personal financial services with water access by tracing the confluence of changes in water policy since the 1980s with the rise of microfinance and reviewing two particular water-microcredit models. The third section identifies the key ideological and practical ingredients of this enmeshment of financial services with water provision: markets at the 'bottom of the pyramid' and 'social business'; inclusive markets and inclusive capitalism; entrepreneurial conceptions of human agency; and behaviour-change programming focused on individual responsibilisation. In section four, we discuss the wider implications of water-microcredit models for water provision and inclusive development, noting that inclusion increasingly comes premised on conditionality, differentiation and segmentation of users and waters, and individual responsibility and behavioural fixes. We conclude with a brief discussion of the ramifications for citizenship and equity.

1 The convergence of household water and microfinance

Water-microcredit arrangements emerged from a convergence of different trajectories in water policy and financial services between the 1980s and 2000s, which we trace here. Both sit in the broader context of neoliberal[1] development, but are far from coterminous with it; they have not emerged seamlessly nor automatically from it, but grown from the experimentation and agency of actors both within and outside the neoliberal development mainstream.

1.1 Shifts in water policy from public provision to an uncertain mix

Prior to the mainstreaming of neoliberal approaches to development in the 1980s and 1990s, water was almost universally thought of as a state responsibility. While a range of private and public actors were involved in activities linked to water provision, including in its treatment, infrastructure construction, billing and collections, and financing, crucially, they remained under the oversight and direction of the state, and private actors were by-and-large involved but for the grace of the state. These broad parameters remained largely uncontested during the International Drinking Water Supply and Sanitation Decade from 1981 to 1990, even as in the mid-1980s the focus of policy increasingly shifted toward creation of more decentralised, regional water governance systems. These were seen as more efficient and accountable than those managed by central government. Local management of water was seen as ideal for governance purposes, but the importance of centrally raising finance and assembling adequate expertise was recognised, and therefore 'system extension or expansion' remained to be 'initiated by the national water institutions' even if run locally or regionally (Eaton 1985: 11; see *IDS Bulletin* edited by Nicol *et al.* 2012, which clearly lays out these shifts).

[1] We understand neoliberalism, following Harvey (2005: 2), as a creed: 'a theory of political economic practices' focused on 'individual entrepreneurial freedoms'.

The International Conference on Water and the Environment in Dublin, Ireland, held in 1992, is widely recognised as demarcating a decisive shift in policy toward markets and the private sector's involvement in water (Camdessus and Winpenny 2003). The Conference officially recorded the failure of the prior Water Decade, and set out four principles, with the fourth declaring that '[w]ater has an economic value in all its competing uses and should be recognized as an economic good' (World Meteorological Organization 1992).[2] This fourth 'Dublin Principle' was widely taken to entail that, since the provision of water has a cost, 'cost recovery' principles ought to be applied, to prevent wasteful consumption (Koudstaal *et al.* 1992). With water thus *politically* constructed as a scarce resource with competing uses, scarcity management moved into the foreground (Mehta 2005). By treating water provision as a private service and citizens as consumers, following economic theory, pricing mechanisms would lead to efficient water allocation as 'the market system encourages water to be allocated with greater preference to its most valued uses' (Gupta 1992).

One of the most obvious reforms following Dublin was to introduce more widespread metering of water connections, often linked with more modern technologies to facilitate pre-payment or pay-as-you-go systems (Marvin *et al.* 2001). The argument for optimising and maximising economic benefit through pricing water depends on the ability to charge users for using certain volumes of water. This is key to 'financial cost recovery' on water investments which, the World Bank has argued, 'is critical for the supply of good services' (World Bank 2004: 23).

The 1990s also witnessed a spread of public–private partnerships (PPPs) in water (Ménard 2013), as well as a shift away from supply-oriented policies (focused on expanding the supply of water) and toward policies focused on mobilising payments (demand) for water provision. The state became a facilitator of privatisation, with many governments 'transforming their roles from providers to facilitators of water and sanitation services' (Traoré 1992). Private sector actors' greater access to capital and expertise was expected to more effectively reach underserved communities (Tara 2013). But the era of great enthusiasm for water PPPs ended in the 2000s, as they encountered multiple challenges. Firstly, their efficiency came into question, as they often failed to invest the promised funds in aging centralised water systems, or to meet their contractual targets for coverage, particularly in rapidly urbanising contexts (Marin 2009). Second, PPPs were found to exacerbate inequalities, as water tariffs rose and low-income people were often further excluded (Bakker 2010). Third, politically charged uprisings and protests in a number of countries explicitly challenged water privatisation and PPPs (Larson 2013; Schnitzler 2008).

Even after water multinationals started withdrawing from developing countries, often due to their own disappointing financial returns, the World Bank and other donors remained reluctant to support provision by public utilities (World Health Organization 2017). Reluctantly acknowledging the political sensitivity of water privatisation, proponents of privatisation conceded it was necessary to pay 'much greater attention to the political economy of moving from here to there' (World Bank 2004: 15). Thus, efforts have increasingly turned toward leaving public ownership formally intact, while creating parallel market-like structures, in a process of 'creeping privatization' (Fritz 2006, cited in Mader 2015: 130). But with both the state and the private sector's partial withdrawal from networked household water provision, for many people the need for safe drinking water and sanitation remains unmet. 2.1 billion people, or almost twice as many people as at the start of campaigns for universal access in the 1980s, suffer from a lack access to safe drinking water (World Health Organization 2017).

[2] The other three principles recognised water's finiteness, the need for multiple governance levels, and the importance of women in water management.

1.2 Experimentation, segmentation, self-help and desperation

The unresolved legacy of public provision, private investment, and PPPs, has left the access-to-water space without a dominant intervention, or a dominant provision paradigm. Household water provision is potentially open to experimentation and innovation, at the same time as many users find themselves dependent on self-help and options of last resort.

On the ground, the experiments, coping strategies of individuals, and self-help approaches of local communities have been diverse, and have benefited different (and sometimes unexpected) actors. What emerges is a multiplicity of segmented water markets, segmented by consumers' different abilities to buy. Different providers, ranging from large formal companies to very small and informal providers, offer different waters at various levels of service, reflecting variations of professionalisation, water treatment, quality assurance, and ultimately different (perceived and actual) quality and safety of the product. Cheaper water (for instance from small vendors or unreliable tap sources) is not necessarily lower quality than more expensive water, but buyers can be less certain of its quality.

In rural areas, generally self-supply from wells or surface water sources prevails, but particularly in urban and peri-urban contexts where no actor provides piped drinking water free from contamination, the segmentation and segregation of supply systems along socioeconomic lines is evident. In some cases, multinational corporations (MNCs), selling water in bottles have filled part of the gap (Greene 2018). The World Health Organization (2017) finds bottled water providers supplying drinking water for at least 20 per cent of the populations in a sample of 15 countries; in seven of these countries, more than half of the population relies on bottled water. Transnational corporations usually control the upper segments of markets, while a variety of small water providers compete for selling water to the working poor majorities at significantly lower prices than corporate players, but still much higher prices than those which private water management firms as network operators charged under PPP arrangements (Montero 2015; Foshee *et al.* 2009). The segment of small private operators forms a heterogeneous, spontaneous alternative to the absent, dysfunctional or inaccessible centralised networks in many areas, and include resellers of piped water, small-scale purified water sellers, and even some service providers that self-finance small local water supply networks.

This situation reflects, paradoxically perhaps, not so much the intentions of the 1992 Dublin Principles, but nonetheless is a direct consequence. Water's treatment as an economic good has found expression in a segmented market – or more precisely, a set of segmented market-like relations and arrangements – for household water. A diverse product range is on sale, from different, competing providers; different waters target at different user and usage segments. But treating water as an economic good has hardly led to greater equity in access. Instead, the emergent solutions have engendered often staggering new inequalities, where some consumers can afford to enjoy high-quality convenient water services while the poorest water users are left carrying heavy containers of questionably-treated water that is still far from cheap. The fundamental shortage of finance for high-quality mass delivery infrastructures remains unchanged.

In this context, microloans have increasingly entered the water space as a proposed (but problematic) facilitator of household-driven investments. Proponents hope microfinance will help address the supply issues by turning households' water needs into financially denominated demand, which suppliers will want to meet.

1.3 The rise of microfinance and the creditworthy poor

Contemporary microcredit emerged out of experimentation, mainly by non-governmental organisations (NGOs), in the 1970s. It garnered recognition from international financial institutions in the 1980s, most importantly with the World Bank integrating it into its structural

adjustment programmes (SAPs) to support economic and financial liberalisation by offering credit for microenterprise as an alternative to social safety nets and formal employment (Weber 2002). Thanks to efforts since the 1980s to commercialise microfinance institutions (MFIs), championed by the World Bank and reciprocated by other major donors, as well as copious subsidies and grants, microfinance expanded rapidly throughout the 1990s and 2000s (Mader 2015: 49–61).

Microfinance services have reached almost 200 million families worldwide (Maes and Reed 2012) and garnered widespread support from key actors in the development space as well as the general public, by promising a dynamic and cost-efficient way of engaging with low-income people. While early microcredit schemes aimed at financing microenterprises only, policymakers have increasingly come to treat financial services as multifunctional tools to address various problems inherent in poverty, above all households' low ability to spend on consumption and household social reproduction. The suggestion is that access to financial services allows low-income people to create, own and accumulate assets, cover shortfalls in the areas of consumer expenditure, meet housing expenses, and smooth their consumption over time (Collins *et al*. 2009).

The expectation of financial services to serve as consumption-enabling and reproduction-enabling tools has broadened the scope, while amplifying what is expected from both low-income people and their financial service providers. Where microenterprise lending already handed the responsibility for development to low-income individuals (to self-develop, by investing in enterprise), contemporary financial inclusion discourse expects them to be shrewd financial managers, who identify and seize opportunities via financial tools, with an entrepreneurial disposition applied to all spheres of life. At the same time, financial service providers are expected to accommodate much broader uses of finance by their borrowers; for instance, credit to purchase household goods or cover medical expenses. More pointedly, increasingly integrate and bundle financial services with the sale of particular goods and services. Much attention has therefore turned to the potential for particular small, capital-intensive, infrastructure-related household investments (such as off-grid home solar units, mobile phones, or individual water filters) to be linked with credit. Microcredit is increasingly seen by private corporations as a key success factor for making such small investments affordable to low-income segments (Devaux 2014).

1.4 From access to finance and water, to household financial services for water

The increasingly explicit linking of financial services with goods and services with broader social significance, or which are essential for household reproduction, not only matches the profit imperative of commercial MFIs that seek new outlets for credit. It also aligns with the vision espoused by the sector's guru, Muhammad Yunus, that 'government, as we now know it, should pull out of most things except for law enforcement, the justice system, national defense, and foreign policy, and let the private sector, a "Grameenised private sector", a social-consciousness-driven private sector, take over its other functions' (Yunus 2003: 204). Yunus has even argued that 'credit is a human right' (Yunus 1997: 1), very much like the human right to water.[3]

The marketisation trend in water since the early 1990s has gradually intermeshed with the expansion of commercial microcredit since the mid-1980s. Earliest suggestions that microcredit had a role in water provision date back to a study for USAID in 1995, which lauded the successes of MFIs at cost recovery, which for most water providers remained elusive (Varley 1995). The subsequent connection of household water with microcredit proceeded with different models and approaches being trialled, expanded, continued, and

[3] Notwithstanding the fact that universal credit access could never really be fulfilled as a right (Hudon 2009).

often again lost in obscurity, in a number of countries (for a review of early models, see Mader 2015: 217–24).

Erstwhile predictions that the connection with microcredit would bring a rapid breakthrough in water – for instance, a prediction of US$12 billion water loans, serving 125 million households worldwide, by 2015, by a Gates Foundation report (Mehta 2008) – have not come true. However, in recent years, activities have indeed accelerated, above all with NGO activity in projects funded by major philanthropic donors and development agencies, with many rolled out 'bottom of the pyramid' (BoP) business models where microcredit programs link up with other companies to sell water services, such as individual connections, deep tube wells, individual filters, chlorine tablets. The World Bank has supported water-microfinance arrangements in recent years in Bangladesh, Indonesia and Kenya, and has pinpointed 'water-related microfinance' as 'a growing opportunity' for financing option for the 2030 Sustainable Development Goals' agenda (Kolker *et al.* 2016: 9). The greatest impetus, however, has come from philanthrocapitalist bodies such as the Bill and Melinda Gates Foundation, the Michael and Susan Dell Foundation, and corporate donors such as the IKEA and Caterpillar foundations, throwing their financial weight behind NGO-delivered interventions. In particular the WaterCredit programme orchestrated by the US-based NGO Water.org has benefited, among other things, from the PepsiCo Foundation's largest-ever donation (US$8 million in 2011).

Water-microcredit arrangements are not a single model, but a set of context-specific experimentations with similar ingredients. While water and microfinance could theoretically be combined in many different ways, including to finance local SME water supply businesses (Mehta 2008), the vastly dominant water-microcredit activity has been retail lending to households for water (Mader 2011). Such lending to households for water generally takes two forms: (1) microloans extended to households to pre-pay for constructing their own water access points, usually by NGOs or MFIs: (2) credit extended directly from water supply companies, for households to post-pay their connection and consumption of water, as in a hire-purchase scheme. We discuss a prominent example of each type here.

1.4.1 WaterCredit pre-payment loans

The first type of model is exemplified by WaterCredit, a model promulgated by the Kansas City-based NGO Water.org. As of 2017, Water.org reported having reached more than 7 million people with 1.6 million WaterCredit loans through 72 'partners' (NGOs and MFIs) in 14 countries.[4] The promoter Water.org is funded by donations and grants from foundation, and acts in the first instance as a grant-maker to numerous 'partner' financial institutions in developing countries. These partners use the grants to establish water and sanitation lending programmes as part of their offer of services to clients.

Water.org's manuals urge financial institutions to recognise WASH financing as an interesting new area of business, and advise them on product development and marketing of tailored *financial* products. The specific water solutions its Water.org's resource manuals outline are household tap connections (to connect to existing piped water systems), on-site household storage tanks for water, private wells/boreholes, and on-site water filtration systems (Water.org 2013: 54–57). Water.org advises for loans of around US$30–70 to be made for filter systems, US$60–400 for tap connections and storage tanks, and up to US$3,000 for borewells (depending on depth and the technology used). Loan periods should range between 12 and 36 months, at interest rates between 18 and 20 per cent per annum. The role of credit in each of Water.org's delivery models is to pre-finance the individual household's investment in improved water access. Notably, in the case of filters, tap connections, and storage tanks, the investment presupposes an *existing* water source that

[4] https://water.org/our-impact, as of 15 November 2017.

the household can gain access to, indicating that much of WaterCredit requires third parties (which in most cases will be government) to provide infrastructure.

Given a dearth of existing research,[5] very little is known about the practical workings and impacts of WaterCredit activities. For WaterCredit-type models more broadly, however, it has already been found that the programme's success hinges on households recognising the benefits of investing and – in entrepreneurial fashion – taking out a loan in anticipation of financial rewards, which should facilitate loan repayment. Positive impacts from improved water in terms of better health, women's empowerment, comfort, and privacy are expected to translate into financial gains, which facilitate repayment of the loan and well as payments to other service providers, such as the water supplier and construction company (Mader 2011). But, in these types of programmes, difficulties are liable to arise when households are unable to make sufficient monetary gains within the loan period, sometimes simply due to construction delays, but also more problematically due to the health impacts not occurring or accruing too slowly, or not being easily monetisable. Some households may not recognise the product as a desirable or affordable choice, leading to low uptake. The resultant risk is that only a relatively small number of households participate, and only small individual and public health benefits accrue, rendering each individual household's return-on-investment small or negative (Mader 2011: 30–32).

A case study by Humberg (2011) on the Veolia-Grameen programme in Bangladesh found a much lower uptake than expected, because the arsenic contamination of local water resources was not obvious, and the health effects would only accrue in the long term. The benefits of paying higher prices for safe water in return for lower future health costs were difficult for the populations to understand; as a result, despite widespread training sessions and efforts to inform households, only 13 per cent of the target population was reached. As another study of household water filters rolled out on credit via women's Self-Help Groups in India found, health impacts across the population were low because of poor uptake. The most vulnerable households were not reached, and widespread incorrect usage rendered the filters ineffective (Freeman *et al.* 2012). Perhaps unsurprisingly, therefore, Water.org's manuals have lately more strongly emphasised marketing and roll-out strategies based on 'behavior change communication' than household finance; moreover, Water.org has sought to link its partners' microfinance marketing with community-led total sanitation (CLTS) programming performed by third parties in India (Water.org 2014: 7–10).

1.4.2 Véolia-Amendis social connections

In Morocco, the French multinational Véolia was legally required by the government to implement social connections in two main towns, Tangier and Tétouan, where it had privately acquired the water supply concession. Most local residents already had access to (non-free but safe) drinking water outside their house, via communal access-points. But while the quality of water was not the main issue in that context, quantity of water was an important issue, with strong inequalities existing between non-connected households and households with private connections (Devoto *et al*. 2012). The aim of the 'social connections' program was to reduce inequalities in water quantity by facilitating individual household tap water connections through new financing options. The word 'social' refers to the fact that Amendis was targeting low-income population segments. Véolia-Amendis had to pre-finance the connections, with households paying the connection cost over time. Local authorities had fixed a cap for the loans: a maximum of around US$2,000 could be charged to the households (US$10 payment per month) to be repaid over multiple years (author interview with top manager, 2016). In this way, Amendis effectively provided water microloans (with longer repayment terms than MFIs) to households willing to pay the full commercial cost of a water connection.

[5] The authors have repeatedly attempted to study the operation and impacts of WaterCredit, but Water.org has repeatedly denied access.

A randomised control trial (RCT) assessment conducted in 2010 to understand whether people would value individual water access enough to pay for it (despite no difference in water quality, as noted above, compared to the existing collective access points), showed that a significant proportion of households indeed was willing to pay extra money for home access (Devoto *et al.* 2012). This experiment was based on interest-free loans, more like a hire-purchase scheme. Yet problems came afterwards, when Amendis had to change the billing to include VAT and other costs, and started to charge higher tariffs, about which people complained and eventually organised resistance against, culminating in social protests in October 2015 in Tangier.[6] While the RCT showed no impact was found on employment or any other kind of income-related measures, the financial burden people faced beyond the cost of water connection was not enumerated, leaving significant knowledge gaps around the financial impacts of the scheme on households.

Moreover, it was found that the programme struggled to reach poor population segments. According to a top manager, while Tétouan was unsuccessful (and not included in the RCT), the repayment rates were high in Tangier but the program was not profitable, due to the heavy financial upfront investment and the cost of necessary administrative tasks such as dealing with missing property titles and organising house numbers on streets. Although the program highlighted the willingness of many low-income people to pay to improve their access to safe water, it also exposed serious implementation issues, and raised questions about low-income people's ability to pay water bills in addition to servicing a loan for water.

2 Key ingredients of water-microcredit arrangements

In this section, we unravel and unpack the components such arrangements are made of. From a development policy perspective, the undeniable failure of many postcolonial governments at delivering key infrastructure and essential services to all citizens (roads, railroads, water, electricity, education, health care, sewage, telecoms, etc.) has led donors since the 1980s to emphasise a greater role for corporations and the private sector. Going beyond one-size-fits-all state-driven approaches, the hope is that entrepreneurs and firms will develop the best-suited solutions for specific contexts and populations, by pursuing business strategies that fight poverty, advance social inclusion, and deliver profits simultaneously. The post-2008 rediscovery by aid agencies of a growth imperative has further reinforced the pursuit finance-friendly approaches to poverty alleviation, nested in a complex and opaque yet decidedly business-oriented 'beyond aid' development agenda (Mawdsley 2018: 191). Consequently, many donors have increasingly insisted that business actors, including multinational corporations, be recognised 'by multilateral development organizations and national governments, as part of the solution to global poverty alleviation' (Schwittay 2011: S71). Simultaneously, business thinkers have forcefully argued that successful businesses should (and actually do) create not just shareholder value, but 'shared value' that accrues to businesses and society at large (Porter and Kramer 2006: 78). They have emphasised businesses can do more good by focusing on their core business activity, instead of pursuing auxiliary efforts such as corporate social responsibility (CSR) programmes. Specifically, the assertion that a 'fortune at the bottom of the pyramid (BoP)' (Prahalad and Hart 2002: 54) awaits businesses that recognise the poor (those living on less than US$2 a day, following Prahalad and Hart) 'not as the needy but as potential consumers

[6] Thousands of protestors chanted 'Amedis go home, Tangier is not yours', according to news reports; see www.reuters.com/article/ozatp-us-morocco-protests-idAFKCN0SQ1W920151101.

and a market' (Elyachar 2012: 110) has informed a vision of poor people's unmet needs as lucrative under-tapped market opportunities.

The application of these logics to water has proceeded despite studies having shown that private providers had been no more efficient than state-owned companies as regards access, service quality, operational efficiency, and tariff levels, and especially not in improving access for the poorest segments of the population (Jaglin and Zérah 2010; Bakker 2010; Marin 2009). Corporations have also faced major difficulties tapping private capital markets to finance network modernisation and expansion. To clarify the imbrication of water-microcredit arrangements with highly problematic aspects of the post-Washington Consensus inclusive development ideology and practice space, at the interface of states, markets and civil society, we highlight four key areas of practical activity or intellectual change which have conditioned the meeting of household water with microfinance. These are: 'BoP' and 'social' business approaches; inclusive markets and inclusive capitalism; entrepreneurial conceptions of low-income people's agency; and an ethic of responsibilisation and behavioural change.

2.1 BoP and social business models

One of the most evocative expressions of the narrative of for-profit business holding the key to solving global poverty is the 'fortune' at the BoP prophesied by business guru CK Prahalad. While the opportunities for businesses opened up by Structural Adjustment in the 1980s were often widely viewed as morally dubious and corporate incursions as unilaterally self-serving, since the late 1990s[7] Prahalad and other BoP enthusiasts have offered an alternative narrative to morally validate and justify doing business with the global underclass, presenting this as a mutually beneficial arrangement across class divides.

From a BoP perspective, people at the bottom of the global income hierarchy are not a social burden or victims. Instead, they are value-conscious consumers, capable of engaging in win-win transactions with businesses, helping these to expand their markets and profits while themselves benefiting from a greater spectrum of choices, acquiring dignity and self-esteem through consumption, and sometimes also finding work as distributors and suppliers in corporate value chains. Businesses, in turn, should embrace the risks associated with doing business in 'hostile environments' (Elyachar 2012: 114) without the technical infrastructure and amenities they may be accustomed to (electricity, hygiene, roads, etc., possibly even institutional infrastructures such as law enforcement).

If what international agencies consider to be unmet needs can really be transformed into unmet demand, the BoP market is potentially huge. An assessment of the size of the overall BoP market, stratified by population segments and different products and services, by the IFC suggested the global BoP population (people with living with less than US$3,000 a year) was 4 billion people, or a US$4.7 trillion potential market, within which water represents around US$20 billion (Hammond *et al.* 2007). For businesses to reach the BoP fortune, business strategists have suggested they must innovate value chains that 'leverage the 4 A's' (Anderson and Billou 2007: 14): *availability*, reaching poor people regardless of their location; *affordability*, with prices accessible for even the poorest consumers; *acceptability*, acknowledging culture-specific repertoires to ensure the willingness of people to consume, distribute or sell the product or service; and *awareness*, finding suitable communication channels to inform consumers about the company's value proposition.

Yet notably absent from these suggestions (as well as from most conversations about BoP business models) are considerations about actual poverty impact. The BoP concept has consequently met critics who argue not only that the products sold might sometimes be

[7] Prahalad and Hart (2002: 14) identify the year 1998 as when they first articulated the argument.

socially harmful – such as skin-whitening creams sold by multinationals in 'fairness'-obsessed India (Karnani 2007) – but also that their sale often depends on multi-level marketing schemes in which low-income people (generally using credit to buy their inventory) profit the least while taking the greatest risk (Dolan and Rajak 2016). Some supposedly innovative BoP business models also merely involve a repackaging of already-existing consumer products in smaller units sold at a higher per-unit prices, rather than real innovation or products with greater developmental potential (Kolk *et al.* 2014).

A concept closely related to the BoP is 'social business'. Where BoP advocates classically propose that large, existing (often multinational) firms can extend their value chains into poverty markets, social business – or 'social enterprise' – advocates propose an entirely new type of firm is emerging to serve BoP consumers' needs. Promoted by Muhammad Yunus, since the late 2000s as the key to a 'new kind of capitalism that serves humanity's most pressing needs' (Yunus 2011), social businesses are seen as emerging from civil society as organisations that adopt business-based models of service delivery, aiming to generate profits which they reinvest and use to reach more poor people. According to Yunus and others (*cf*. Nicholls 2008), social businesses thus marry the efficiency of businesses with the pursuit of social goals; a 'double bottom-line'.

For water provision, the social business concept proposes that new hybrid organisations can facilitate cost recovery from low-income users (a key concern for mainstream water policymakers) while still pursuing a social purpose, namely reaching more low-income people with water services. The BoP business proposition, as applied to water,[8] suggests the problem is not that poor people cannot afford to pay market rates, but rather that the appropriate delivery mechanisms – infrastructural, organisational, financial – have not been found or used. BoP water business models not only look to offer BoP enthusiasts an opportunity to redeem their concept, but also an invitation for development actors to recast low-income people as value-conscious consumers of water who can be served by private enterprise. In this rendition, people's likelihood of gaining access to water as BoP consumers depends on demonstrating their (supposed) ability and willingness to pay, thus enticing businesses to service them new ways of packaging, marketing, delivering, and financing water.

2.2 Inclusive markets, inclusive capitalism

Linked to BoP and social business visions, but operating at a more macro-political level, a panoply of 'economic inclusion' programmes and discourses has emerged over roughly the last decade, which focuses on expanding the opportunities available to actors in global markets, ensuring the participation of everyone and leaving no one behind (Weber 2017). Narratives of development as 'inclusive growth' (World Economic Forum 2017), 'inclusive markets' (Mendoza and Thelen 2008), 'inclusive business' (Jenkins and Ishikawa 2010), or 'inclusive capitalism' (Hart 2012) not only articulate particular political visions and aspirations, but also invoke contemporary social justice vernacular to justify further market expansion and deepening. They suggest an alignment of the social inclusion agendas which have framed the post-2015 sustainable development goals (SDGs) with pro-business changes in the global political economy (or perhaps a capture of the former by the latter). The power of inclusion thinking can be seen, not least, in the emergence of financial inclusion as the new go-to term for what was once microfinance, which has successfully deflected criticisms of microfinance while expanding microfinance to accommodate a broader set of actors, including large financial corporations (Mader and Sabrow 2015).

Although the proliferation of 'inclusions' evokes high-minded ideals of equality and justice – after all, who could argue for *exclusion*? –, market inclusion pursues a highly simplistic,

[8] As well as other essential services, such as sanitation, electricity, health and education.

shallow notion of equality, namely equal opportunity to participate in market exchange. While advocates of 'inclusive' markets (or business, or capitalism) promulgate participation in market-oriented exchange as a great equaliser, questions about the unequal terms on which actors engage in exchange disappear from sight, as do questions of how markets exploit hierarchies and shape class conflicts (Selwyn 2016). Pointed critiques of market inclusion have been articulated by highlighting how unfavourable terms of exchange lead to 'adverse incorporation' in markets, which reproduces and generates new forms of inequality and difference (Hickey and Du Toit 2013: 134). As Meagher (2015: 837) notes, market inclusion and inclusive growth discourses thereby reframe 'poverty and informality as a product of inadequate inclusion in markets, rather than a result of inequities in the way markets function.'

The proposal that markets and capitalism should be rendered more inclusive reframes lack of access to safe water from failure of public bodies or market actors to adequately serve low-income people to an exclusion from (hypothetical) markets or capitalist relations of control over water. To illustrate: a 2013 Deloitte report adopted an 'inclusive markets' frame to assert that sanitation is a 'private sector product that many can afford' (Shah *et al.* 2013: 11). Consequently, it argued that NGOs, microfinance institutions (MFIs), companies, and governments should actively deploy 'market-making' (*ibid*.: 22) strategies to overcome exclusion. However, poignantly, the report also revealed the highly unequal terms of the anticipated inclusion: all latrine options were the simplest possible designs, cheapened by modifications that would render their usable life-span significantly shorter than others (shallower pits) yet sold at an amplified price. Households would have to pay interest worth up to half the latrine's value (in addition to, in many cases, still needing a government subsidy).[9]

2.3 Entrepreneurialism

With the consolidation of the neoliberal revolution in development theory and practice since the 1980s, a fundamental re-imagining of human agency has accompanied the broader repositioning of business and markets in development thinking. Poor people are increasingly understood as – either by their very nature, essentially; or by necessity, practically – agents who take charge of their own destinies through deliberate, gain-oriented and self-responsible economic choices. The figure of the poor entrepreneur as an ideal-typical bearer of individual agency has emerged from these developmental imaginaries in which 'risk is a universal condition of existence' (Szeman 2015: 475) and in which rights arising from citizenship are increasingly irrelevant.

> No longer a minor figure… the entrepreneur is abstracted and universalized into a model for all citizens (indeed, a model that may have the potential to replace the citizen as such)… It is a mechanism of selfhood and subject formation that begins from the premise that there is no one to count on, no one who can do anything for you other than yourself.
> (*ibid*.: 474, 484)

Microcredit played an instrumental role in this figuration of the entrepreneur (and poor borrowers as good risks), with its uplifting stories of low-income people becoming empowered as entrepreneurs. Muhammad Yunus on numerous occasions has proclaimed 'all humans are born entrepreneurs', and that poor people are 'the world's greatest entrepreneurs'.[10] In a similar vein, the authors of *Portfolios of the Poor*, whose study of poor people's money management as 'portfolio management' (Collins *et al.* 2009: 139) became a

[9] The report proposes an interest rate of 24 per cent over a 1.5–2-year timeframe and a further 40–45 per cent government subsidy as instrumental for its suggested business model.

[10] Yunus Social Business Centre @ Becker College: http://yunuscentre.becker.edu/muhammad-yunus-quotes; Huffington Post: www.huffingtonpost.com/muhammad-yunus/global-business-summit_b_2070352.html.

cornerstone of the financial inclusion literature, evokes low-income people as shrewd financial agents who entrepreneurially grasp economic opportunities and hedge against risks.

The entrepreneurial vision of agency features centrally in market-inclusive water thinking, not only with the hope for greater numbers of small-scale private operators to emerge, founded by poor entrepreneurs, but also with the expectation that water users will think entrepreneurially in terms of risks, rewards, and investment. In water-microcredit arrangements, an entrepreneurial disposition becomes a precondition for water access, as low-income consumers are expected to behave *as if* they were entrepreneurs, by recognising safe water as an economic opportunity to invest in. Users are expected to borrow, raising capital against anticipated future returns from a personal water investment, weigh it up against the risks of indebtedness or miscalculation, and garner financial returns (for instance, lower medical costs or higher labour market incomes). Moreover, they are expected to actively embrace these risks and opportunities, instead of making demands for systemic change and equity, such as fulfilment of a citizens' right to water.

2.4 Behavioural change and responsibilisation

At the same time, it is obvious that not all low-income people are real entrepreneurs; at least not in the narrow sense of being capable of running profitable business ventures and driving innovation. But in the broader, abstracted sense, too, the world's poor often act under a different calculus and set of rationales, and frequently disappoint policymakers and economist's great expectations when they fail to self-responsibly embrace risks and grasp opportunities as predicted. Consequently, their ability to take the 'correct' developmental decisions for themselves has increasingly been drawn into question. Here too, microfinance played a role, albeit with its *dénouement* as an unsuccessful tool for self-development via microenterprise. A slew of RCTs since the late 2000s, which were expected to deliver conclusive evidence for 'the miracle of microfinance' (Banerjee *et al*. 2015: 22; Cull and Morduch 2017), returned very weak and partly negative findings about the impact of microloans on borrowers' household economy (net assets, incomes, and consumption levels). But the RCTs also discovered that access to credit wrought small but significant behavioural changes, which policymakers seized upon as 'tantalizing evidence that there could be important potential benefits for some poor households to be gained by helping the poor reprioritize their expenditures' (Bauchet *et al.* 2011: 8). The changes that gained the most attention were around more responsible consumption and expenditure patterns, including reductions in nonessential expenditures and 'temptation goods' (Banerjee *et al.* 2015: 24), and a slightly increased propensity to open up a business.

These findings coincided with the accession of behavioural economics into the mainstream of the economics discipline, which treated the recognition that much of human agency deviated from rational actor models as a breakthrough insight.[11] Translated into development and social policy, the new behaviourist orthodoxy holds that poor and low-income people often suffer from particular behavioural abnormalities. As the World Bank (2014) and others drawing on behavioural economics have argued, their judgments and choices are conditioned by mental shortcuts, social biases, and norms, not least due to cognitive 'bandwidth' constraints imposed by poverty itself, which lead them to make less-than-optimal choices. They argue these constraints and misbehaviours could be overcome via interventions that lead to the 'right' choices (see Karlan and Appel 2012). Financial instruments – including savings, financial education, and microloans – play a key role in the new behaviourism, both for studying low-income people's cognitive dispositions (via the data they generate) and as tools for re-shaping their 'decision architectures'.

[11] Not least with the awarding of the 2017 Swedish National Bank's Prize in Economic Sciences to Richard Thaler.

Critics argue this amounts to behavioural engineering and a refocusing of poverty policy on individual responsibility (Berndt 2015). To Berndt (2015), behavioural economics approaches in development help shift the focus from fixing the problems of markets to fixing how market subjects work *for* markets. Following Li (2014), such attempts to 'fix' the behaviour of subjects with expert knowledge are not new, but rather are established techniques of liberal government since colonial times, with presumptions of a universal homo economicus merely being added in the neoliberal period. We would argue the ascendant behavioural agenda brings a gradual but potentially far-reaching change in governmental approach in relation to markets, via novel explanations of the relationship between markets and individuals. Poor individuals are regarded as failing to thrive because of, on the one hand, their lack of understanding markets and the opportunities they present, and on the other hand, markets failing to serve poor individuals due to misunderstanding their peculiar cognitive dispositions. The new behaviourism undergirds visions of progress being attained through inclusive markets, by offering explanations for past and present failures of market-oriented development not as failures of policy, but resulting from the misbehaviours and inadequacies of the market subjects themselves. Poor people find themselves with the responsibility to behave appropriately for the market to serve them, or else be responsible for their own poverty. Moreover, the new behaviourism offers policymakers and others new techniques for seeking to reshape individuals' behaviours – nudges, etc. – and create the 'correct' outcomes, *as if* markets had the correct individuals at their disposal.

Although, as we write, the behavioural agenda has only begun to show its emergence into the water inclusion space (cf. Dreibelbis *et al.* 2016; Neal *et al.* 2016) and water-microcredit arrangements specifically, water scholars should watch very closely for the ways in which it rejuvenates market-oriented approaches. Three reasons are salient. First, the new behaviourism delivers an extremely market-friendly explanation of why prior market-based water provision failed, namely due to failures of individuals, not of market-oriented policies. Second, it offers enthusiasts of BoP or inclusive markets approaches to water delivery a new roster of intrusive nudge techniques (often rolled out with, or through, financial tools) to push low-income people toward a greater cooperation with and uptake of market-oriented water arrangements. Third, it offers a potential defensive explanation if water access were to still remain elusive, as reflecting the misbehaviours and poor decisions of low-income people themselves; the market would not have failed to deliver water to low-income people, it would be the people who have failed to make the market work.

3 Water-microcredit and the new inclusions: differential, conditional, individualised

What the water-microcredit models reviewed in Section 2.4, despite their different practical approaches, have in common is the aim to make unmet needs for water into demand for water supplied by businesses, by expressing the need with (borrowed) money. In the BoP/social business and inclusive markets narrative, it is widely presumed that a strong unmet potential demand from low-income people for goods or services merely needs to be unlocked through innovative business models; in water-microcredit arrangements by using a loan to pay for water services. The underlying assumption is that the primary economic obstacle for potential users is not a lack of money with which to pay the full costs of services, but of financial liquidity, which can be removed through access to sources of finance.

However, these promises of inclusion come at the expense of hopes for equity in water access. In these market-oriented, debt-led initiatives, water access depends on low-income people's ability and willingness to access and use financial tools, and often even pay a higher price for a lower-quality service (relative to better-off users). This raises important

issues for water policy, as equity in water access and rights-based approaches are at risk of displacement by a morally and practically dubious 'right to credit'. As we discuss here, the challenge that water-microcredit arrangements pose to progressive water policy is, in spite of their promises of inclusion, they render water access differential, conditional, and individualised.

3.1 Inclusion with differentiation: different users, segmented services

With the insertion of microcredit into already highly unequal, segmented, market-like water provision, what at first sight could appear as a step towards equalising access in fact invites new users to gain access only on vastly differential terms. With their focus on extending credit to households (rather than to the utility provider) water-microcredit arrangements often entail self-help or off-grid solutions, which often come at far higher unit costs compared to networked solutions – hence the WaterCredit loans of up to US$3,000 loans for private borewells. However, also where credit is used to gain access to existing water networks via a tap connection (which presupposes a network already existing), the cost for the new low-income will be higher than for other users. A 20 per cent flat[12] annual interest loan, repaid over 36 months in weekly instalments (the upper bands of WaterCredit's models), entails paying 1.6 times more than a household that buys the connection outright. Considering, in addition, the relatively smaller amounts of water used by poorer households against the fixed cost of the tap connection, it is clear that lower-income water users pay much more per unit of service compared to middle-class users. At a purely financial level, this is *differential* inclusion, because the poor are charged more to be included, simply because they are poor.

A closely related issue is the differentiation of water types, what we call *segmented* services. Field observations in Mexico, for instance, highlight how low-income populations have vastly different levels of service than higher-income users, and are forced to juggle and match different water sources at different prices to deal with different needs (e.g. drinking, cooking, cleaning, bathing). This segmentation is both a cause and consequence of water delivery through different water infrastructures operating in parallel. From a resource management perspective, allocating water optimally to different uses following price signals, as emphasised in the Dublin Principles, this may be efficient and desirable; but from a users' perspective it is neither. Obtaining a portfolio of different waters from different sources including public sources, bottles, and small informal providers is a time-consuming, uncertain, and often physically demanding process. Moreover, water-microcredit arrangements are likely to exacerbate the segmentation, as loans support off-grid and self-help solutions, sending much-needed (subsidised) capital flows toward end-users rather than water providers and leaving urgently-needed investments in tackling water quality problems unfunded.

With this, water-microcredit arrangements appear a reflection of market inclusion programmes more broadly. They produce and re-produce multivalent inequalities and differences *within* the market frame. Research on the financial inclusion of poor populations has shown that beyond economic or technical barriers, factors such as social discrimination along socioeconomic status, gender and ethnicity lines affect the inclusivity patterns of markets (Johnson 2005; Guérin *et al.* 2012). Some population segments may be excluded on the supply side by selective network expansion or segmented water provision along racial lines (Kjellen and McGranahan 2006: 2; Bakker 2010: 66, 99). But we need to also take social regulation into account, as personal relations, social norms and identities circumscribe or expedite accession to the marketplace. With water-microfinance, 'inclusive' water access becomes inclusion on a differentiated and segmented pattern. Differences are demarcated along socio-economic and other status lines (different users) as well as along segments of water (different usages, different levels of safety). Lower-income people already pay the

[12] Flat, not declining, interest is common in microfinance.

highest price for water of more dubious quality, above all in terms of health impacts, and women usually the highest price in terms of labour to obtain water. The continuing differentiation and segmentation of water will further impose the costs disproportionately on those who are already most disadvantaged.

3.2 Inclusion with conditionality: metered access, via credit

With water-microcredit arrangements, we also find water inclusion being premised upon water users meeting extra conditions. Water access is made *conditional* upon willingness and ability to pay and therefore willingness and ability to take a loan, via the use of financial services; in defiance, not least, of the unconditional human right to water enshrined in 2003 in international law, and adopted by the United Nations in 2010.[13] Moreover, the contested issue of metering reappears – in some senses literally, with low-income users using credit to pay for metered connections – but also metaphorically, with water-microcredit enacting the principle that each person gets only what they pay for. Changes to social provision systems in the post-Structural Adjustment development space, especially conditional cash transfers (CCTs), have fostered a withdrawal of the state from service provision (Lavinas 2017), and have made social provision increasingly conditional on recipients exhibiting '"responsible" individual behavior' (Ruckert 2010: 825). States have increasingly established a 'social reproduction regime in which social inclusion is conditional upon the performance of beneficiaries' (Ruckert 2010: 831).

While in Ruckert's analysis conditionality emanates from the conditions attached to international financial institutions' (IFIs) loans to developing country governments, which require cost-saving on social welfare, we find the conditional inclusion logic also to extend to the broader market provision logic. Simply put, in market inclusion, BoP, and social business-type approaches (which are often deployed by NGOs, not IFIs), people only get what they pay for, and non-payers must be cut off – from water, other services, and access to financial resources. Water-microcredit arrangements offer conditional inclusion in goods and services that are essential to everyday life and social reproduction, conditional on good behaviour. Importantly, these approaches introduce new cost recovery channels for water that hinge on the conditionality built into financial contracts, outsourcing the enforcement of payment for water (in models like WaterCredit) to third parties, such as banks, MFIs, or specialised NGOs. These actors appear to command superior payment enforcement mechanisms, compared to water providers, and – where users fail to perform correctly – also are more ably poised to deploy the tools of behaviour change, 'using nudges and choice architecture to encourage more desirable social outcomes' (Klein 2017: 492).

While Ruckert's argument that social inclusion is increasingly 'conditional upon the performance of beneficiaries', few studies have yet connected debt burdens with a lack of infrastructure and how people cope with basic service-related costs (for water, sanitation, gas and electricity). In that context, the conditions attached via retail loans to poor people's participation in BoP or inclusive markets-type approaches, may represent an additional debt burden, as existing evidence demonstrates that a large important proportion of microfinance clients are already over-indebted, even if they keep repaying (Guérin *et al.* 2013). New debts that are taken on for access to basic services are liable to increase financial distress.

3.3 Individual behaviour and responsibility: marketisation and depoliticisation

Finally, with water-microcredit arrangements, we also note an ethic of individual responsibilisation and behavioural change gaining centrality in water provision. Water becomes an individual issue; individuals are responsible for their own actions and inclusion.

[13] The UN's Economic and Social Council (ECOSOC) 'General Comment No. 15' articulated this right, specifying that water facilities and services must be affordable and accessible to all, regardless of ability to pay , although the power and usefulness of this right have been overestimated and strongly criticised.

Individuals' failures to behave appropriately – for instance, 'failing' to entrepreneurially invest extra time in generating extra income – will have knock-on effects, above all the risk of being unable to repay the loan, leaving households in exacerbated poverty, and leading to subsequent exclusion from other services. No redistribution from rich to poor is considered (let alone compensation for past water injustices); rather, low-income people are offered an opportunity to purchase water by indebting themselves (and a responsibility to do so) and paying the better-off for extending them a loan. Should they fail to grasp this offer, or to gain enough benefits, this would reflect their own irresponsibility, misbehaviour, or lack of entrepreneurial ethic.

Behaviour-change interventions have held sway in water and sanitation at least since the emergence of Community-Led Total Sanitation (CLTS) programmes, which some argue are now practically 'hegemonic in donor-supported rural sanitation' in parts of the world (Bateman and Engel 2018: 155). CLTS programmes can use shame and community self-policing to foster a departure from subsidy-driven programming (Cavill *et al.* 2015). But where CLTS interventions aim to instigate behaviour changes through community self-help activities – and may tacitly exploit existing class, caste, status and political formations in the process (Bateman and Engel 2018) –, water-microcredit arrangements signal a shift toward behavioural change interventions that target individuals. In this, they are aligned with contemporary nudge theory, and seek to mobilise market-ready forms of agency amongst the poor (Berndt 2015; Leggett 2014). While already often under financial duress, low-income people, who suffering most from the existing inequities around water access, are obliged to play along with the commodification of essential goods and services; and pay the full costs of better services. Their responsibility is to express their social reproduction needs as market opportunities for water and financial service providers, and to act entrepreneurially to make their demand effective by finding ways to earn money and pay for water and credit. No wonder that, as highlighted above, increasingly intrusive behavioural interventions are directed at poor and low-income people. Our concern is that behavioural-change agendas will rise to the fore when low-income households fail to perform their intended roles of being compliant borrowers or borrowing at all, for water. Water scholars and practitioners may take heed, and be prepared to critically confront the modalities and consequences of nudges and other individualised behaviour-modification tools as they proceed to enter into the water and sanitation space (see Dreibelbis *et al*. 2016 and Neal *et al.* 2016 on nudging for sanitation and handwashing behavioural change).

Where, in the 1990s, many governments came under pressure to treat water as a private good, or otherwise lose desperately-needed lines of credit, their citizens now find themselves under similar pressures. But, as stressed by Guérin *et al.* (2013: 2), debt is already a fact of everyday life for the poor, and 'the rising debt burden has to be placed into a broader context of sometimes stagnant or declining household incomes'. Precarious livelihoods, inexistent or weak social protection, and growing consumption needs (not only among the middle classes but also lower income brackets) are the social context in which water-microcredit arrangements are being deployed.

4 Conclusion

Above, we illustrated how the enmeshment of water with microcredit shifts debts and responsibilities for water onto users, and thus poses an acute challenge to more equitable water provision arrangements. While water-microcredit models may perhaps be evaluated more broadly as yet another dimension of the financialisation of social reproduction and of poverty itself (Fine 2010; Mader 2015), more narrowly they advance a creeping erosion of the social contract around water. Promises of inclusion no longer come from national

governments and local bodies, and instead come from transnational bottling companies, large corporate foundations, specialised NGO, and finance companies.

In 'inclusive' markets for water and sanitation, low-income populations, constructed as consumers rather than citizens, encounter increasingly *segmented* (not equal) services, find access to services being *conditional* on responsible individual behaviour (rather than equitably delivered based on rights), and experience increasingly *differential* (not equalising) treatments. These features, which are particularly salient in water-microcredit arrangements, extend across the water space wherever 'inclusive markets' are proposed as solutions, and will be exacerbated with new behaviourist approaches infiltrating the wider 'post-market' development space (Klein 2017). Concerningly, the conditionality of inclusive markets, premised on payment-for-service logics and self-responsible, entrepreneurially-oriented individual agency, undermines the notion of unconditional human rights – enshrined, in the case of water, in the Human Right to Water. When market inclusion based on credit replaces rights and equity-oriented logics of access, hard-won entitlements to a minimum standard of provision for human survival and dignity are watered-down (as it were) to be mere rights to access the market. The risk is that social and economic rights atrophy further, and come to resemble the deeply illogical 'human right to credit' propagated by Muhammad Yunus.

Far from overcoming the failures of the neoliberal development order, the ostensible re-embedding of social questions into market-oriented development agendas (inclusive markets, BoP, social business, etc.) entrenches market logics in water provision in the post-neoliberal policy space. As Weber points out with regard to the SDG agenda, contemporary inclusive development practices are 'premised on the consolidation of the conditions of the 'market episteme' while attempting to mitigate against any challenges to this political project' (Weber 2017: 410). Water-microcredit arrangements offer an avenue for water privatisation by privatising the water *access question* as an individual/household choice and responsibility. In this, they avoid the broader, more politicised question of resource ownership and system governance, while enabling water privatisation 'through the back door' (Mader 2011: 7). In light of the political and practical failure of earlier privatisations and attempts at full cost recovery, water-microcredit arrangements help pursue these objectives while clearly paying greater 'attention to the political economy of moving from here to there' (World Bank 2004: 16). Rather than being led by corporations, the post-neoliberal privatisation of water access by NGOs and MFIs – often funded by corporations and corporate philanthropy – has thus far effectively evaded political contestation.

Taking a wide view, we urge scholars and policymakers to analytically transcend the false binary built into discourses of inclusion and exclusion with respect to markets. Instead of (mis-)understanding socioeconomic iniquities as reflecting market exclusion – as with insinuations that low-income people's lack of safe water is a case of exclusion from (hypothetical) water markets –, scholars and practitioners of development should clearly recognise inclusive markets themselves as increasingly significant sites for the production and reproduction of inequalities. Economic inclusion into capitalist markets, especially when premised on debt for basic needs, perverts the idea of inclusion, by celebrating inequalities of outcome under the guise of equal access.

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